United States Department of Agriculture

Forest Service

Intermountain Region

Uinta-Wasatch-Cache National Forests

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Travel Analysis Report (TAR)

Addendum #2017-1 to Final Report (09/30/2015)

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Objective

The Uinta-Wasatch-Cache National Forest Road System is essential in providing access to and through National Forest System lands. This addendum is to add the Lambs Canyon Road, National Forest System Road (NFSR) # 82011, to the road atlas. The road was not analyzed in the original report. It has been determined that road is currently under Forest Service jurisication and should have been included in the analysis. This assessment of the road within the content of the Forest-wide analysis is intended to provide land management officers with the framework needed to support land management objectives, desired future conditions, and management of a minimum road system that is safe and responsive to public needs and desires; is affordable and efficient; has minimal adverse effects on ecological processes and ecosystem health, diversity, and productivity of land; and is balanced with available funding for needed management actions (*Forest Service Manuals (FSM) 7712.10).* Information and guidance will also be provided to allow future site-specific travel management decisions to be made that meet the integrated transportation system goals.

Product

This addendum is a process, not a decision making document and does not allocate land for specific purposes. The purpose of this analysis is to inform managers and interested parties of the strategic intent of the road system for forest planning and demonstrate compatibility of the existing road system with ecological, social, and economic objectives. It also provides interdisciplinary teams and line officers context for sub-Forest scale analysis; identifies needed and likely not needed road segments; sets priorities for more detailed analysis and program planning; and identifies issues requiring further evaluation for both existing roads and roads planned for the future.

Analysis Area/Scale

The analysis area is Lambs Canyon on the Salt Lake Ranger District of the the Uinta-Wasatch-Cache National Forests (UWC).

Interdisciplinary Team

An interdisciplinary team (IDT) approach was used for this analysis. The team consisted of the following members:

Renee Flanagan	Supervisory Civil Engineer
Elisha Hornung	NFMA Compliance
Leah Smith	GIS Analyst
Brendan Waterman	Hydrologist
Steve Flinders	Wildlife Biologist
Marshall Alford	Salt Lake Ranger District

Plan for the Analysis

The IDT was directed to add Lambs Canyon Road, NFSR #82011 to the *Transportation Anaylsis Report (TAR) for the Uinta-Wasatch-Cache National Forest* dated 09/30/2015 (2015 TAR). The analysis process followed the 2015 TAR in terms of the process included identifying the issues; assessing benefits, problems and risks; describing management opportunities and setting priorities; and reporting. The process, analysis, and rating descriptions are described in detail in the 2015 TAR and associated appendices. Note that analysis results are Forest-wide and due to the small number of road segments added the changes are specific to number of road segments and miles while percentages are unchanged.

APPENDIX A - WATERSHED HEALTH, RIPARIAN FUNCTION AND AQUATIC SPECIES

Loss of Connectivity and Accessible Habitat, Loss of Riparian Function, and Hill Slope Stability

Analysis Results. No change in Forest-wide results. The results were described in *percent of the road segments analyzed* and the addition of 3 road segments to the 2851 originally analyzed do not change percentages in Forest-wide results.

Sediment Loading

Analysis Results. The analyses showed that 2,047 miles of road (or 80 percent of the road segments) across the Forest are not within 300 feet of any stream channel. Approximately 78 miles (or 11 percent of the road segments) received a value of one; 76 miles (or 3 percent) received a value of three; 269 miles (or 11 percent) received a value of six; and 88 miles (or 3 percent) received a value of nine. The majority of roads (2,200 miles, or 86 percent of segments) are in the lower rating category for sediment loading.

Overall Rating

Analysis Results. Results of the analysis show that 136 miles of road (or 5 percent of the road segments) across the Forest analyzed are rated as high risk, 426 miles (or 17 percent) are rated moderate risk, and 1,996 miles (or 78 percent) are rated as a low risk to watershed health, riparian function, and aquatic species. A table of overall ratings for each road segment across the Forest is available in Table A.2 of the 2015 TAR.

The rating for the segments analyzed for the Lambs Canyon Road are below. The below table will appended to the 2015 TAR Table A.2.

Table A.2 - Watershed Health, Riparian Function, and Aquatic Species

FSR	SEGMENT												OVERALL	
Name	ID	Length	Functional Class	District	Objective ML	Operational ML	SERVICE_LIFE	Surface Type	Loss of Connectivity and Accesible Habitat	Riparian Function	Hill Slope Stability	Sediment Loading	Value	Rating
LAMBS CANYON ROAD	82011	1.47	L	1	3	3	G	AC	2	2	1	0	5	L
LAMBS CANYON ROAD	82011	0.56	L	1	3	3	G	AC	2	2	1	0	5	L
LAMBS CANYON ROAD	82011	1.16	L	1	3	3	G	AC	2	2	1	0	5	L

APPENDIX B - TERRESTRIAL WILDLIFE

Road Density Indicator

Analysis Results, for this indicator, 640 segments were identified as high risk, 1422 were identified as medium risk, and 789 segments were identified as low risk across the Forest. A total of 652 miles were identified as high risk, 1248 miles were identified as medium risk, and 670 miles were identified as low risk. Because this indicator was based on road densities within watersheds, every segment within each

watershed received the same density classification, and thus the same indicator score. The average lengths of the road segments rated high, medium and low risk ratings were 1.01 miles, 0.877 miles and 0.845 miles respectively.

Important Habitats Indicator

Analysis Results. There were 2062 segments ranked in this analysis, some of which were ranked under more than one habitat type. In total 891 segments were ranked high, 749 segments were ranked medium, and 1214 segments were ranked low. The miles of road that was ranked high was approximately 605 miles ranked high, 564 ranked medium, and 1388 miles were ranked low. Average segment lengths for high, medium, and low were 0.68 miles, 0.75 miles, and 1.14 miles respectively.

Habitat Diversity Indicator

Analysis Results. In total 676 segments were ranked high, 1409 segments were ranked medium, and 769 segments were ranked low across the Forest. The miles of road that was ranked high under the diversity indicator was approximately 98.6 miles, 975 miles ranked medium, and 1496.1 miles were ranked low across the Forest. Average segment lengths for high, medium, and low were 0.146 miles, 0.6924 miles, and 1.95 miles respectively.

Overall Rating

Analysis Results.

The following tables will amend and append tables in the 2015 TAR.

Table B.3

Risk Score	Number of Segments	Average Length	Total Miles
3	77	2.59	199
4	376	1.6	603
5	761	1.06	807
6	783	0.79	621
7	566	0.47	268
8	263	0.26	69
9	28	0.12	3.4

Table B.4

Classification	Number of Segments	Average Length	Miles
High	857	0.28	340.4
Medium	1544	0.93	1428
Low	453	2.10	802

Table B.5 - Terrestrial Wildlife (TW)

FSR	SEGMENT		Functional Class	District	Operational ML	Surface Type	Road Density	Important Habitats	Habitat Diversity	OVERALL	
Name	ID	Length								Value	Rating
LAMBS CANYON ROAD	82011	1.47	L	1	3	AC	1	3	2	6	M
LAMBS CANYON ROAD	82011	0.56	L	1	3	AC	1	3	1	5	M
LAMBS CANYON ROAD	82011	1.16	L	1	3	AC	1	3	2	6	M

APPENDIX C - ACCESS

Private Access

Analysis Results. The results of the analysis conclude that access to the indicators listed above is a primary function of the road system. Approximately 1036 miles, or 30 % of the road segments, sampled provide primary access to either non-Forest Service managed land (436 miles, 11%) or an existing agreement or permit (600 miles, 19%).

Public Access

Analysis Results: The results of the analysis conclude that access for recreation is the number one use of the road system throughout the Forest. Approximately 2144 miles of road, or 64 percent of road segments, sampled provide primary access for recreation opportunities including developed recreation sites (542 miles, 21%) or dispersed recreation opportunities (1602 miles, 44%).

Administrative Access

Analysis Results. No change in Forest-wide results.

Connectivity

Analysis Results. No change in Forest-wide results.

Overall Access Rating

Analysis Results. The overall rating for access shows that 2560 miles of road, or 99% of the road segments, sampled provide needed access by receiving a high (1214 miles, 46%) or moderate (1345 miles, 53%) rating. Only 10 miles, or 1% of the roads analyzed received a low access benefit rating. These roads should be evaluated further at the sub-Forest scale when appropriate. The below table will be appended to the 2015 TAR Table C.1.

Table C.1 - Access

FSR	SEGMENT					ML		SERVICE		PRIVATE				PUBLIC				ADMIN.							OVERALL	
Name	ID	Length	Functional Class	Jurisdiction	District	Objective	Operational	Level of Service	Service Life	Private	Agreement	SU	Rating	Dev Rec Site	Disp Rec Site	Trailhead	Rating	Admin	Range	Min Right	Fire	General FS-Timber	Rating	Connectivity	Value	Rating
LAMBS CANYON ROAD	82011	1.47	L	FS	1	3	3	G	C	p	p		**3**			p	**3**	p			p		**3**	**3**	12	**H**
LAMBS CANYON ROAD	82011	0.56	L	FS	1	3	3	G	C	p	p		**3**				**0**	p			p		**3**	**3**	9	**H**
LAMBS CANYON ROAD	82011	1.16	L	FS	1	3	3	G	C	p	p		**3**				**0**	p			p		**3**	**3**	9	**H**

APPENDIX D - ROAD MAINTENANCE

Commercial Use

Analysis Results. No change in Forest-wide results.

Shared Road Maintenance Agreement

Analysis Results. Of the 2,854 road segments analyzed for shared road maintenance, 298 road segments or 584 miles of road have current shared maintenance agreements in place. Twelve road segments or 8 miles of road were identified as having the potential for agreements but no agreements are in place. The remaining 2,543 road segments or 1,975 miles were identified as not having existing agreements or the potential for shared road maintenance agreements.

Byway/Backway

Analysis Results. No change in Forest-wide results.

Public Forest Service Road

Analysis Results. No change in Forest-wide results.

Annual Maintenance Costs

Analysis Results. The analysis showed that annual costs vary dramatically by road segment. Roads that have annual costs that are less then 75 percent of average cost per mile include 211 miles (or 6% of segments). Roads that have annual maintenance costs that are between 75 and 125 percent of average per mile include 933 miles (or 54% of segments). Roads that have annual maintenance costs that are greater than 125 percent of average per mile include 1426 miles (or 40% of segments). Road segments with high costs per mile need to be evaluated further for opportunities to lower maintenance costs (i.e. through shared maintenance agreements or reevaluation of maintenance level).

Overall Rating

Analysis Results. In terms of existing and potential maintenance funding the analysis shows that 75 miles, or 2 percent of road segments, received a high benefit rating; 1801 miles, or 72 percent of road segments received a moderate rating; and 694 miles, or 26 percent of road segments received a low rating. Since one of the primary purposes of this road analysis process is to provide a cost efficient road system, careful comparison of road segments receiving a low benefit rating to other benefits and costs should be evaluated. The below table will be appended to the 2015 TAR Table D.1.

Table D.1 - Road Maintenance

FSR	SEGMENT		Functional Class	Jurisdiction	District	ML		Surface Type	Commercial	Shared-Maint	Byway/Backway	PFSR	MAINTENANCE Annual			OVERALL	
Name	ID	Length				Objective	Operational						$/mile	HIDE	Rating	Value	Rating
LAMBS CANYON ROAD	82011	1.47	L	FS	1	3	3	AC	0	2	0	2	5579	5579	3	7	M
LAMBS CANYON ROAD	82011	0.56	L	FS	1	3	3	AC	0	2	0	2	5579	5579	3	7	M
LAMBS CANYON ROAD	82011	1.16	L	FS	1	3	3	AC	0	2	0	2	5579	5579	3	7	M

APPENDIX E - MANAGEMENT OPPORTUNITIES, PRIORITIES AND RECOMMENDATIONS

Costs / Risks

Analysis Results. Based on the analysis, 184 miles of road (or 5 percent of road segments) have been assessed a high cost or risk to the physical environment. In addition, 1262 miles (or 42 percent of road segments) have been accessed a moderate rating and 1124 miles (or 53 percent of road segments) have been assessed a low rating. Overall, this indicates that the majority of the classified road system is not contributing negatively to the physical environment. This is a good indication that concentrated efforts to relocate roads out of riparian areas, over the last 15 years, have been successful. Efforts should continue to prioritize action and/or assessment to decrease the number of miles with a high risk. Potential management opportunities may include modifications to use, relocation of roads, and/or harden surfaces within riparian areas. In addition, consideration to seasonally close roads to protect the physical and biological environment should be emphasized.

Benefits

Analysis Results. Based on the analysis, 979 miles of road (or 35 percent of road segments) have been assessed a high benefit for access and road maintenance indicators. In addition, 1134 miles (or 50 percent of road segments) have been assessed a moderate rating and 457 miles (or 15 percent of road segments) have been assessed a low rating. Overall, this indicates that the road system is in-place. Specifically, those roads with low benefit rating should be prioritized for further analysis, review and/or action. Indicators should be individually assessed and confirmed to determine future management. Potential management opportunities may include modifications to use (conversion), follow-up on any potential outside funding sources, and closure and rehabilitation.

Priorities

Analysis Results. The analysis indicated that 596 miles of road (or 19 percent of road segments) have been assessed an A priority; 1074 miles or 37% of road segment a B priority; 536 miles or 27% a C priority; and 363 miles or 17% no priority. Specific action should be taken for roads evaluated with an A priority. These roads are identified as high risk with a low benefit. If several of these roads are concentrated within a watershed, the watershed should be considered a high priority for assessment and a sub-Forest scale analysis should be incorporated.

Primary Management Opportunities (PMO)

Analysis Results. Of the 2851 road segments analyzed, the initial forest wide review suggests that 2830 road segments or 2525 miles of road are listed as "Likely Needed (N)" and 24 road segments or 45 miles of road are listed as "Likely Not Needed (NN)". The below table will be appended to the 2015 TAR Table E.1.

Table E.1 - Management Opportunities and Priorities

FSR	SEGMENT				ML		Overall Issue Ratings						Management Opportunity		
							COST/RISK			BENEFIT					
Name	ID	Length	District	Functional Class	Objective	Oper.	WRA	TW	RATING	Access	Maint	RATING	Priority	PMO	Comments
LAMBS CANYON ROAD	82011	1.47	1	L	3	3	L	M	L	H	M	H	--	N	
LAMBS CANYON ROAD	82011	0.56	1	L	3	3	L	M	L	H	M	H	--	N	
LAMBS CANYON ROAD	82011	1.16	1	L	3	3	L	M	L	H	M	H	--	N	